# High-Efficient Direct-Vent Wall Furnace

EMPIRE

DV-40E

- Utilizes State-of-the-Art Technology for Added Fuel Efficiency
- Electronic Thermistor Thermostat Monitors Furnace Operation
- Optional Wall Thermostat Hook-up is Standard and Will Accept Any 24-Volt Wall Thermostat
- Total Comfort for a Fraction of the Cost of Electric Heat
- Sealed Combustion Chamber Maintains Indoor Air Quality
- Standard Unit Vents Through a Wall up to 10-inch Deep (Extended Horizontal and Vertical Vent Runs Available as Accessories for 20,000 and 40,000 Btu Heaters)
- Complete with Blower for Proper Circulation and Even Heat Distribution
- Hot Surface Ignition
- Three Btu Sizes to Heat Any Space
- Peace of Mind Safety Features Built into Furnace
- Mobile Home Certified

## Surround Yourself with Comfort

EMPIRE®
Heating Systems

# Inner Beauty Comes Standard On These Great Looking Heaters:

*With sleek, slimline designs, soft corners and beige finish, all three models blend in perfectly with any decor.*

- **Attractive Styling With Ease of Use**
  The Empire High-Efficient DV-20E (20,000 Btu), DV-40E (40,000 Btu) and DV-55E (55,000 Btu) heaters' attractive styling gives any room a contemporary look. Space-efficient and easy to use, the unique design makes them cool to the touch, meeting or exceeding all American National Standards Institute temperature tests. A top-mounted control compartment allows you to simply flip the switch to "on" and turn to your desired temperature.

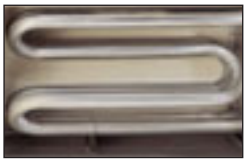
- **More Efficient Heating Means More Savings**
  Gas can heat your home for a fraction of the cost of electric heat, and advanced gas heating technology makes these heaters 80+% efficient. Empire Comfort Systems' High-Efficient Direct-Vent Wall Heaters are available in the widest range of heating sizes to fit your special needs. The 20,000 Btu DV-20E is ideal for heating basements, family rooms or a combination of small rooms. The 40,000 Btu DV-40E and 55,000 Btu DV-55E are perfect for heating large family rooms, offices, apartments or even entire homes. All three models can be converted from either LP or natural gas and easily warm rooms up to 2,000 sq. feet. With the largest cfm (cubic feet/minute) fans in the industry, these furnaces are also the most effective at delivering the warmth you desire.
  The 350 cfm fan in the DV-20E and DV-40E is unmatched, while the DV-55E's 400 cfm fan delivers all the quiet, efficient heat you need.
  The standard electronic thermistor thermostat keeps your room within plus or minus 1° of your selected temperature. Add up all these features, and you get more savings than you'd get with a conventional heater.

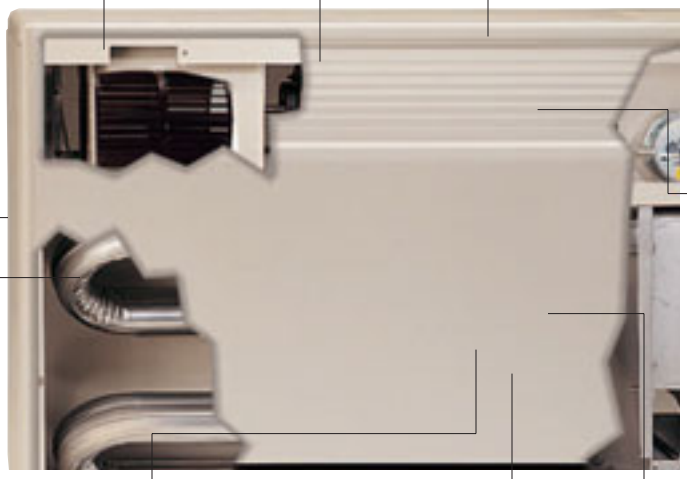
# Surround Yourself With Comfort

*Dual Circulation Blowers force air around the heat exchanger and out the bottom louvers at floor level.*

*Embossed Steel Outer Casing with durable powder paint finish resists fingerprints and stays cool to the touch.*

*Tubular Heat Exchanger provides a combustion passageway while extracting 80+% heat from gas.*





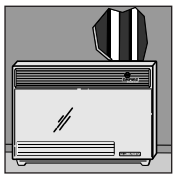
*Control Compartment features an electronic thermistor sensing thermostat.*

*Electronic Circuit Board controls automatic ignition, circulating air blowers, fan inducer run time and operates on-board diagnostics.*

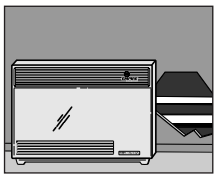
*Electronically Controlled Fan Inducer works with inshot burners to pull outside air into the tubular heat exchanger.*

*Inshot Burners facilitate smooth operation.*

*Electronically Controlled Hot Surface Ignitor assures consistent and quiet ignition.*



*DV-40E With Optional Vertical Venting*



*DV-40E With Optional Horizontal Venting*

## *Simplified Venting By Empire*

*Empire High-Efficient Heaters offer more flexibility than most direct-vent heaters. They can be installed on virtually any wall, as well as in any basement. Outside wall installation is simple and only requires silicone adhesive caulking around air inlet tube. Each heater comes with one standard vent terminal for walls up to 10-inch thick, and venting options are available for walls up to 32-inch thick.*

*Every DV-20E, DV-40E and DV-55E comes complete with a standard through-the-wall installation kit. For extended runs, vent options of 15 feet with a maximum of two elbows or a 10-foot run with three elbows are available on DV-20E and DV-40E.*

- **Direct-Venting Means More Efficient Heat**
  The energy-efficient method for heating your home actually starts outside. A state-of-the-art heat inducer pulls outside air into the burner compartment and then pushes the same air, now heated, through the unique tubular heat exchanger. A dual, centrifugal fan, air circulation system blows room air across the tubular combustion chamber. This counterflow action starts at the top of the unit and exits at floor level. Because no room air is used for combustion, you enjoy cleaner, healthier and warmer heat.
- **Built-In Safety**
  Safety is the most important thing we build into every Empire High-Efficient Heater. All three models feature a state-of-the-art electronic circuit board that monitors furnace operation and controls all on-board diagnostics. They also have an automatic shut-off valve. In the event of a power outage, the heaters will automatically restart when power returns.
- **Simplified Diagnosis and Maintenance**
  Each heater features a green LED light in the control compartment that provides easy diagnosis by service personnel.
- **Empire's Unmatched Warranty**
  *It only makes sense that we'd back these superior heaters with a superior warranty. These high-efficient heaters are guaranteed by a warranty that's unmatched in the industry. The combustion chamber carries a 10-year limited warranty and all other parts carry a 5-year limited warranty with a 2-year limited labor warranty.*

# High-Efficient Direct-Vent Wall Furnace 20,000, 40,000 and 55,000 Btu Models

## Specifications

| Model | DV-20E | DV-40E | DV-55E |
|---|---|---|---|
| Color: Cabinet and Front Panels | Beige | Beige | Beige |
| Btu Input | 20,000 | 40,000 | 55,000 |
| Btu Output | 16,300 | 32,600 | 44,825 |
| **Overall Dimensions** | | | |
| Width | 37" | 37" | 37" |
| Depth | 15 3/4" | 15 3/4" | 15 3/4" |
| Height | 26" | 26" | 26" |
| Shipping Weight, Lbs. (One Carton) | 128 | 135 | 146 |
| **Temperature Control** | | | |
| Electronic Control | Yes | Yes | Yes |
| Blower, tangential type, one speed | 350 cfm | 350 cfm | 400 cfm |
| **Minimum Clearance to Combustible From:** | | | |
| Top | 10" | 10" | 10" |
| Each Side | | | |
| Left Side | 3" | 3" | 3" |
| Right Side* | 3" | 3" | 3" |
| *Note: 10" Right Side Clearance Suggested for Serviceability of Right Side Panel Area. | | | |
| Bottom of Unit to Floor Covering | 0" | 0" | 0" |
| **Gas Inlet** | | | |
| Type of Gas (State on Order) | Natural or LP | Natural or LP | Natural or LP |
| Iron Pipe Size (N.P.T.) | ½" | ½" | ½" |
| **Venting** | | | |
| Wall Depth | | | |
| Minimum | 2" | 2" | 2" |
| Maximum | 10" | 10" | 10" |
| See accessories for thicker walls. | | | |
| Vent Opening in Wall | 3¼" | 3¼" | 3¼" |
| **Venting Options** | | | |
| Maximum Length | | | |
| 15' with 2 Elbows | Yes | Yes | No |
| 10' with 3 Elbows | Yes | Yes | No |
| Note: Intake/exhaust extensions may by used in combination to a maximum of 15 ft. in length and two elbows. | | | |
| **Accessories** (State on Order) | | | |
| Intake/Exhaust Extension Kits: | | | |
| 54" Kit with 2 Elbows | DVE-1 | DVE-1 | N/A |
| 54" Kit for Extended Vent Runs | DVE-2 | DVE-2 | N/A |
| Extended Vent Terminal* (for walls up to 32" thick) | DVT-2 | DVT-2 | DVT-2 |
| * Standard vent terminal for wall up to 10" thick is included with unit. | | | |
| Floor Pad | DVP-1 | DVP-1 | DVP-1 |
| 24-Volt Thermostat | R-633 | R-633 | R-633 |
| Wireless Remote Wall Thermostat | TRW | TRW | TRW |
| **Safety Controls** | | | |
| Automatic Shut-off for Main Burner | | | |
| Over Temperature Safety Limit Switch | | | |

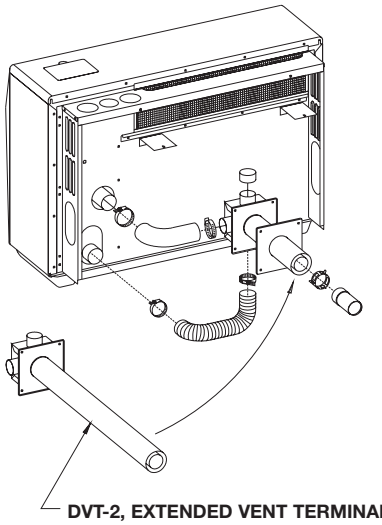
**Warranty**

Combustion chamber carries a 10-year limited warranty.
All other parts carry a 5-year limited warranty with a 2-year limited labor warranty.

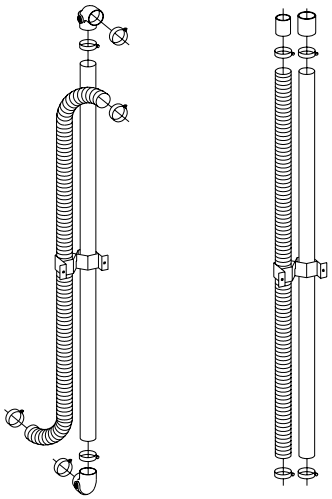
Note: Empire has a policy of constantly improving quality and performance of its appliances, therefore, materials and specifications are subject to change without notice.

*Standard Concentric Vent*

*Standard Intake/Exhaust Venting for up to 10" thick wall.*



**DVT-2, EXTENDED VENT TERMINAL**
Replaces standard vent assembly for up to 32" thick maximum wall.



**DVE-1 Extension Kit**
54" in length with 2 elbows, for vertical or horizontal runs.

**DVE-2 Extension Kit**
54" in length, use with DVE-1 kit for vent runs in excess of 54".

**Please Note:** DVE-1 and DVE-2 are not available for DV-55E.

## For Your Safety

**Read your Owner's Manual for complete installation and safety information.**

Installation and repair should be done by a qualified service person.

This series is design certified in accordance with American National Standards Institute Z21.86 (latest standard) and the National Standard of Canada CSA 2.32 (latest standard) by the American Gas Association and the Canadian Gas Association as a Fan Type Direct-Vent Wall Furnace.

The installation must conform to local codes. In the absence of local codes, the installation must conform with American National Standard (National Fuel Gas Code) known as NFPA 54 and ANSI Z223.1 (latest edition) available from the American National Standards Institute, Inc., 11 West 42nd St., New York, N.Y. 10036, or from the National Fire Protection Association, Batterymarch Park, Quincy, Massachusetts 02269.

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